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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,813	06/09/2001	Francis F. Cohan IV	1043.001US1	5045

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EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT PAPER NUMBER

2674

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5

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/681,813

Applicant(s)

COGHAN, FRANCIS F.

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

### DETAILED ACTION

This application has been examined. The claims 1-20 are pending. The examination results are as following.

#### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the drawings must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

In claim 1, where is the figure shown “ the optical sensor detecting relative movement of the surface of the housing along two axes”?

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claims 1, “the optical sensor detecting relative movement of the surface of the housing along two axes against a second external surface to cause a pointer on a screen of a computer to correspondingly move” is not supported in the specification.

The specification does mention “ the relative movement of an optical 106 desirably caused a pointer on a screen of a computer to correspondingly move, as can be appreciated by those of ordinary skill within the art” paragraph 0017. However, the specification does not disclose, “the optical sensor detecting relative movement of the surface of the housing along two axes” as claim 1.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5, 8, 10-11, 13-15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Zloof (US patent 5,489,922).

Regarding claim 1, Zloof discloses in figures 1-2, a pointing device comprising a housing (22) substantially shaped to fit a finger of a user; a click sensor disposed within an underside of the housing, the click sensor actuated by the user pressing the underside of the housing through the finger against a first external surface with sufficient force (see pressure sensing element 46, see column 5, lines 3-14), an optical sensor disposed within a surface of the housing, the optical sensor detecting relative movement of the surface of the housing against a second external surface caused by relative movement of the finger of the user (see abstract, means 36 for transmitting a plurality of cursor position control signals to computer processor 10 in response to movement of outer ring 28 in relation to inner ring 26, see column 3, lines 60-66, see column 5, lines 38-57).

Regarding claim 5, Zloof discloses a second housing (24, see figures 1-2) and a second click sensor (46) disposed within an underside of the second housing, the click sensor actuated by user pressing the underside of the second housing through the second finger against the first external surface with the sufficient force (see figure 7, column 5, lines 3-14, because the first and second housing are the same features)

Regarding claim 8, Zloof discloses the second finger of the user is a middle finger of the user (see figure 1).

Regarding claims 10 and 17, Zloof discloses a wireless transceiver for wireless communication (12) with a corresponding wireless transceiver of a computing device

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(14), such that the actuation of the click sensor and the relative movement detected by optical sensor with the computing device through the wireless communication (see figure 1).

Regarding claim 11, Zloof discloses in figure 1-2, a second housing attachable to a wrist (64) of the user and in which the wireless transceiver is disposed; and a cable connecting the second housing (see column 5, lines 63-67).

Regarding claim 13, Zloof discloses the first external surface and the second external surface are the same surface.

Regarding claim 14 as discussed the same claims 1 and 5 above.

Regarding claim 15, Zloof discloses an inherent grip situated at an end of each of the first and second housing (22, 24 because a grip should stick to the housing).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-3, 6-7 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zloof (US patent 5,489,922) as applied claim 1 and 14 in view of Petrich et al. (US patent 6,104,379).

Regarding claims 2-3, 6-7, Zloof discloses in figures 1-2, a pointing device comprising a housing (22) substantially shaped to fit a finger of a user as discussed in claim 1.

However, Zloof does not disclose the grip usage of tip of the finger of the user and the housing is from a flexible, glove-like material. Pertrich et al. disclose the grip used of tip of finger and the housing is from a flexible, glove-like material (see figure 1A, gloves 109, 110, see column 6, lines 49-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the grip usage of tip of the finger and the housing is from a flexible, glove-like material as taught by Petrich et al. because this would be worn on the physical fingers of person to protect the fingers as safety and gloves maybe use as hand sensing device such as measures the configuration of the hand (see column 6, lines 43-53).

Regarding claims 18-20, Zloof discloses a pointing device comprising a fit finger, a click sensor disposed within an underside of the housing, the click sensor actuated by the user pressing the underside of the housing through the finger against a first external surface with sufficient force (see pressure sensing element 46, see column 5, lines 3-14), an optical sensor disposed within a surface of the housing, the optical sensor detecting relative movement of the surface of the housing against a second external surface (see second ring 24) caused by relative movement of the finger of the user (see abstract, means 36 for transmitting a plurality of cursor position control signals to computer processor 10 in response to movement of outer ring 28 in relation to inner ring 26, see column 3, lines 60-66, see column 5, lines 38-57) as discussed in claims 1 and 14.

However, Zloof does not disclose a glove of a first and second finger. Pertrich et al. disclose the glove-like material (see figure 1A, gloves 109, 110, see column 6, lines 49-52). It would have been obvious to one of ordinary skill in the art at the time the

invention was made for using of the gloves as taught by Pertrich et al. and the gloves that fitting into the two fingers having two rings 22 and 24 of Zloof because this would protect the fingers and the two rings to be cleaned.

8. Claims 4, 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zloof (US patent 5,489,922) as applied to claims 1 and 14 in view of Russell (US patent 5,481,265).

Zloof discloses a first and second housing shaped to fit a finger of user as discussed above. However, Zloof does not disclose wherein the finger of user is an index finger of the user; a cable ending in a connector for connection to a computing device, such that the actuation of the click sensor and relative movement detected by the optical sensor are registered with the computing device through the cable. Russell discloses in figure 1B, the finger of user is an index finger of the user; a wireless computer interface (10, can attached the humand hand, wrist finger, etc.) transmits infrared user control signal (12) through signal system (14), which is interconnected into a computer (30) via a cable (28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement an the finger of user is an index finger of the user; the cable connected to the computer device as taught by Russell is connected to computing device of Zloof because this would be comfortable worn and very easily operated by forefinger pressure, and for the hardwired versions are less costly to manufacture than wireless versions (see column 6, lines 36-40).

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zloof (US patent 5,489,922) in view of Iwasaki (Patent application Publication 2002/0024502).



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Zloof discloses a first and second housing shaped to fit a finger of user as discussed above. However, Zloof does not disclose an expansion slot disposed within the second housing and receptive to a corresponding expansion card, data stored on which is accessible to the computing device through the wireless communication. Iwasaki disclose in figure 6, a mouse (40) having a slot (22a) or opening (22a), and the storage medium 21 (expansion card) inserted or taken out of the housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement a slot and the storage medium can be inserted or taken out of the housing of the mouse as taught Iwasaki into the second housing of Zloof because this would record new data and interchange the card memory.

### ***Response To Arguments***

10. Applicant's arguments filed on 2-20 have been fully considered but they are not persuasive.

Applicant argues that Zloof does not disclose "the optical sensor detecting relative movement of the surface of the housing along two axes against a second external surface to cause a pointer on a screen of a computer to correspondingly move". Examiner respectfully agreed with that; however, this limitation is not supported in the specification. From this reason, the rejection is maintained.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on (703) 305-4709.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D. C. 20231

**Or faxed to:**


**(703) 872-9314 (for Technology Center 2600 only).**

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,  
Arlington, VA Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kimnhung Nguyen  
July 19, 2004

  
RICHARD HJERPE 7/22/04  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600